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CONFERENCE ON THE PROBLEMS OF BURNS
(USSR)

[Translation]

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FOREWORD

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CONFERENCE ON THE PROBLEMS OF BURNS
(USSR)

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[Surgery]

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Russian, per

N. V. Gudim-Levkovich

The Conference on the Problem of Burns took place between the 6th and 8th May of 1959 in Leningrad at the Military Medical "Order of Lenin" Academy imeni S. M. Kirov.

It was attended by surgeons, therapists, dermatologists, oculists, gynecologists, pharmacologists and representatives of other special branches of medicine. Eighty-one papers were read by participants from 20 cities and more than 30 of the country's scientific and medical institutions.

As stressed by many participants, the conference confirmed once more the necessity of joint and centralized research on the problem studied. The Conference meetings were presided over by Professors A. A. Vishnevskiy, B. A. Petrov, D. A. Arapov, A. N. Berkutov, A. A. Bocharov and I. S. Kolesnikov.

I. S. Kolesnikov and T. Ya. Ar'yev (Leningrad) on the basis of their experience in treating more than 2500 patients with burns reported on the results of investigations concerning a number of questions in dispute. In the report they underscored an expedient treatment of victims with superficial burns in dermatological hospitals, and indicated that the so-called primary surgical preparation of burns is in fact the dressing of a burned surface and must be done without any haste and with minimum trauma for the patient. For combating shock, the speakers attached a decisive significance to the use of infusion therapy, especially blood transfusion.

According to the data given in the report, local medicinal treatment of burns must follow the same principles as the treatment of wounds. There are no specific antiburn remedies, antibiotics not being an exception in this case.

On the basis of extensive experience in treating patients with severe burns, it was demonstrated that the treatment is based on operative surgery with the use of modern dermatomes, and that a preliminary excision of necrosis followed by plastic surgery is the most promising means. In determining the prognosis of life in patients with burns, the speakers attached great importance to the extent of necrosis involved. They stressed in the report that asepsis in hospital for treating burns must be the same as in any other surgical department. Additional and complex measures of aseptic precautions were not justified in practice. A number of propositions of the report were more completely illuminated in the speeches of collaborators of the Burns Department of the Clinic of Hospital Surgery No 1 of the Military Medical "Order of Lenin" Academy imeni S. M. Kirov.

M. I. Shrayber and I. M. Dolgina (Moscow) indicated in their report that an effective solution to the problem of treating burn victims is possible only by an approach from the neurogenic standpoint in medicine. The use of complex methods is the only correct way of treating burns. It is based on pathogenetic therapy, important components of which are novocaine blocks, intravenous drip infusions of large quantities of weak solutions of novocaine, somnifacients and narcotics, and dressings with A. V. Vishnevskiy's oily balsam emulsion. The necessity of sparing the patient's nervous system to the maximum must also be taken into account during operations. For this reason, they demonstrated that in the majority of casualties skin grafts were transplanted to a granulating surface without sutures and, in severe cases, autoplasmic and homoplasmic surgery were combined.

D. M. Grozdov (Moscow) pointed out the effectiveness of hemotherapy in burns of all degrees and described indications for the application of new blood substitutes. L. N. Pushkar' (Moscow) reported on the positive results obtained in using isoimmune blood, plasma and serum for the treatment of toxemia.

V. O. Verkholetov (Leningrad) presented data demonstrating that in determining the area of burns it is not necessary to aim at absolute precision. In practice it is quite sufficient to use such simple methods as the "rule of nine" or the "rule of thumb".

V. P. Pilyushin (Leningrad) in his paper confirmed need for varying the use of medical diet in relation to the severity of the patient's condition. He also described special diets used for burns at the Military Medical "Order of Lenin" Academy imeni S. M. Kirov.

A number of papers were devoted to the operative treatment of severe burns. All the speakers pointed out the necessity for applying surgery as early as possible although many stressed the severe trauma caused by the removal of necrotic tissues. According to the data given by S. B. Sumarokov and N. Ye Povstyanoy (Saratov), operations performed during the period of necrotic delimitation are less traumatic and, at the same time, they have all the advantages of an earlier intervention.

M. I. Lytkin (Saratov) stated that, according to his observations, a preliminary surgical treatment of burns, in the true sense of this word, can be safe for the patient only in cases where the extent of surgery does not exceed 3 to 4% of the body surface with the total injured area not over 10%.

B. S. Vikhriyev (Leningrad) based his report on the experience obtained in the Department of Burns of the VMOLA. He stated that the improved methods of general treatment and the development of anesthesiology make it possible to perform operations even in cases of extensive deep burns as soon as the shock symptoms have passed.

Certain characteristics of treating severe burns at various sites formed the subject of N. V. Gudim-Levkovich's report (Leningrad). The speaker emphasized the specific character of burns of the hand, foot, articular region and a number of other parts of the body.

V. N. Glibin (Leningrad) described the method of treating sloughing wounds of grafted areas and complications in their subsequent development and outcome.

O. P. Butrimas and D. S. Klebanov (Kaunas), A. Ye. Bezuglyy (Chita), V. V. Kulemin (Ivanovo), K. L. Litvinko et al (Riga), A. A. Matveyev and Ye. F. Laskina (Moscow), F. G. Pogorelov (L'vov), B. M. Khromov et al (Leningrad) and G. A. Yablonskiy devoted their speeches to the experience of treating patients with burns in various medical institutions.

L. A. Povel'nenko (Moscow) reported in his paper on the positive effect of homoplastic surgery with preserved skin, performed on patients with extensive burned areas to cover granulating wounds or to transplant skin grafts to the necrotic tissues over the third degree burns. Contrary to the above, V. M. Burmistrov and V. O. Verkholetov (Leningrad) appraised more carefully the effectiveness of using grafts from the skin banks, relating the positive effect of homoplastic surgery to a temporary accretion of skin grafts. According to their data, they observed accretion only in rare cases when they used lyophilized skin preserved in 31-E solution. They did not succeed in preventing death by performing homoplastic surgery on patients with the destruction of skin totalling more than 20% of the body surface and on cases of advanced cachexia. Homoplastic surgery applied for the treatment of patients with severe burns was described in a number of other papers.

V. M. Pinchuk (Leningrad) indicated in his report that he was able to represent the degree of skin injury already in the first few days after the accident by examining carefully under microscope a strip of excised skin. In addition, he analyzed the causes of death of burned patients from data obtained in 111 autopsies.

K. V. Lebedeva and others (Leningrad) devoted their report to the problem of frequency and character of the injury of bones in burns.

On the basis of a microscopic study of skin grafts grown in humans, L. B. Berlin (Leningrad) communicated that during the period of his investigations (70 days) the restoration of the skin functioning as an organ did not occur. A. A. Kirov (Arkhangel'sk) demonstrated that regeneration of the nerve endings did not become complete before 3 years after the skin grafting and, in some cases, even later.

M. V. Knyazevskiy (Ryazan'), N. D. Kazantseva (Leningrad) and A. I. Ptitsyn (Voronezh) stressed in their report the character of treatment applied to children with burns and analyzed their mortality rate. In addition, A. I. Ptitsyn demonstrated a dermatome with interchangeable drums, which he prepared from a model put out by the "Krasnogvardeyets" Factory, V. Ye. Kitsay demonstrated an adaptor for a dermatome, which makes possible the slicing of skin strips without the use of glue.

M. V. Mukhin and V. V. Fialkovskiy (Leningrad) reported on the character of the course and treatment of thermal burns of the face and their aftereffects. B. S. Vikhriyev, M. A. Matusevich and V. I. Filatov (Leningrad) treated the subject of anesthetization of burned patients during operations and dressing of the wound.

I. D. Zhitnyuk and Z. A. Abrashenkova (Leningrad), B. V. Troitskiy (Yaroslavl'), B. V. Nastavin (Severomorsk), Yu. A. Rudin (Leningrad), K. A. Nurishchenko (Leningrad), N. Ye. Povstyanoy (Saratov), A. N. Puzanova (Minsk), A. K. Shipov (Ryazan'), A. P. Parfenov (Leningrad), N. V. Lazarev and I. F. Grekh (Leningrad), and V. S. Goryanov (Ryazan') dealt in their reports with the problem of conservative treatment of burns.

A. N. Orlov and Shelyakhovskiy (Leningrad) stressed in their reports as did a number of others, the role of antibiotics in the prevention and treatment of infections resulting from burns and the dangers incurred in using them indiscriminately.

The report of I. R. Petrov (Leningrad) was a summary of the experimental research conducted under his supervision with a group of collaborators.

It demonstrated the leading role of the nervous system in the pathogenesis of shock caused by burns and stressed the expediency of combining a prolonged oxygen therapy with adrenocorticotrophic hormone (ACTH) and other remedies for combating shock.

T. R. Chems (Riga) and A. D. Kartavova (Leningrad) described the disturbance of the water-salt metabolism in burns; P. I. Mymrikov (Stalingrad), changes in the cholesterol content of the blood; Ye. V. Gubler and others (Leningrad), lack of oxygen supply and ways of combating this condition; L. M. Klyachkin and V. I. Filatov (Leningrad), research results on capillary hemorrhage and the permeability of the vascular wall; V. Ye. Belyayev (Leningrad), changes in the functions of the adrenal cortex and the role of hormone therapy in burns; and V. V. Chepigin (Leningrad), the effect of the injury of burns on the course of pregnancy and on the menstrual cycle of women.

V. N. Gulyayev (Saratov) in his paper emphasized that in patients with granulating wounds the gravity of their condition depended on the degree of hypoproteinemia. He also indicated that the most effective remedy for combating hypoproteinemia consisted of covering the exposed wounds with auto- and heteroplastic skin grafts.

Experimental studies of N. I. Kochetygov (Leningrad) and M. A. Tsukerman et al (Rostov) were devoted to studying the effectiveness of an early necrectomy at various stages after burning.

V. A. Konstantinov and others (Leningrad) stressed the necessity of developing a standard model of an experimental burn and proposed an apparatus prepared for this purpose.

P. Ya. Lokot' and others (Rostov) reported on the results of experimental research on the clinic, morphology and treatment of burns of the upper respiratory tract.

The subject of V. N. Sheynis' paper was the organization and maintenance of a fifty-bed department for the treatment of burns.

I. I. Glymovoy (Leningrad) in his paper, surveyed the treatment of casualties with burns under battle conditions.

V. D. Dolinin (Leningrad), V. A. Borisov (Leningrad), I. D. Nazarkin (Simferopol) and N. A. Ushakov (Leningrad) in their papers discussed the characteristics of the course, treatment and termination of burns caused by napalm.

A. V. Kozlova and Ye. D. Semiglazova (Moscow) in their report, underscored the gravity and long duration of burns caused by radiation.

V. G. Gerasimyak and O. N. Nokonova (Leningrad), O. S. Misharev (Minsk), A. I. Kot (Minsk), P. V. Preobrazhenskiy (Leningrad) and P. D. Demidova (Leningrad) in their reports discussed the character and course of burns combined with radiation sickness; K. K. Zaytseva (Leningrad) reported on the character of their healing.

A. V. Gridnev (Odessa), N. P. Ivanova and M. N. Pavlova (Moscow), V. M. Burmistrov and V. G. Slinko (Leningrad) and M. A. Tsukkerman et al (Rostov) in their reports discussed the treatment of burns in combined radiation lesions.

V. V. Vlasov (Novosibirsk) reported on the results of experimental research on the character of surgical treatment and healing of wounds present in combination with burns.

The participants of the conference summarized the scientific studies and noted that in order to have more effective and coordinated results it was advisable to organize further similar conferences and symposiums. It was recognized that it is necessary to prepare new directions for the treatment of burns in which the materials presented at the conference should be reflected. At the same time, shortages were pointed out in the production and utilization within the Soviet Union of modern instruments and equipment for treating victims of burns.